

# Chapter 3

## Urban Vacant Land Uses and Its Implications With Declining Cities: Green Infrastructure in Their Impact on Climate Change Hazards

**José G. Vargas-Hernandez**

*Tecnológico Nacional de México, ITSF, Mexico*


**Francisco J. González-Àvila**

*Tecnológico Nacional de México, ITSF, Mexico*

**Elizabeth García Domínguez**

*Instituto Tecnológico José Mario Molina Pasquel y Henríquez, Unidad  
Académica Zapopan, Mexico*

**Omar C. Vargas-González**

 <https://orcid.org/0000-0002-6089-956X>

*Tecnológico Nacional de México, Ciudad Guzmán, Mexico*

### ABSTRACT

*This chapter aims to analyze the implications between the declining and shrinking cities, urban vacant lands, urban land uses, green infrastructures, urban green areas, and their impact on climate hazards change. The analysis departs from the basic assumption that urban vacant land sites and spaces have a negative connotation but supported by the appropriate policies and programs of incentives can turn around and develop the essential green infrastructure to enable the mitigation of climate*

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*change hazards, economic growth, and socio ecological development. The method used is the analytical-descriptive base on the theoretical and empirical literature review. It is concluded that the land uses of vacant land sites more vacationed towards urban green innovation infrastructure and forest areas contribute to mitigate the climate change hazards.*

## **INTRODUCTION**

Urban processes linked to shrinking cities feature characteristics including economic decline associated to urban land uses, and other socio-economic dimensions that may lead to the adaptive capacity building, which in turn increases the urban green infrastructure and moderates the impact of climate hazards change. The vacant land is used as green infrastructure to improve the health of urban ecosystems.

Likewise, city regions experiencing economic growth and increases in urban population are subject to the adversity of losing green infrastructure resources leading towards a disequilibrium in adaptive capacity to climate change hazards and the quality-of-life goals.

With respect to urban vacant land, most cities do not have adequate programs of economic incentives to support maintenance and improvements of abandoned buildings and vacant land. Vacant land and abandoned building are not maintained and have a negative impact on the quality of life and property values of the community.

In accordance with the above, it is important to recognize the intrinsic value of vacant lots, since their usefulness is not recognized, or even negatively attributed to them because they can visibly damage the urban landscape and, in the worst cases, become dangerous places for society. However, as will be analyzed in this document, these spaces have great potential, both for the development of green areas and for the mitigation of harmful aspects related to climate change.

The objective of this analysis is to find the relationships of the implications between the declining and shrinking cities, urban vacant lands, urban land uses, green infrastructures, urban green areas, and their impact on climate hazards change. First, it begins analyzing the processes of declining and shrinking cities to establish the relevance of the major urban vacant land sites and the land uses derived. The land uses of vacant land sites more vacationed towards urban green innovation infrastructure and forest areas are the ones that lead to mitigate the climate change hazards.

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